



Institutionalizing ORM and a Mishap Reduction Mindset into the Culture of Naval Aviation

Commander's Training
Symposium
October 5-7, 2004

RADM Dick Brooks, USN
Commander, Naval Safety Center



Magnitude of Accidents

In FY04, Navy and Marine Corps Mishaps Resulted In:

NAVY

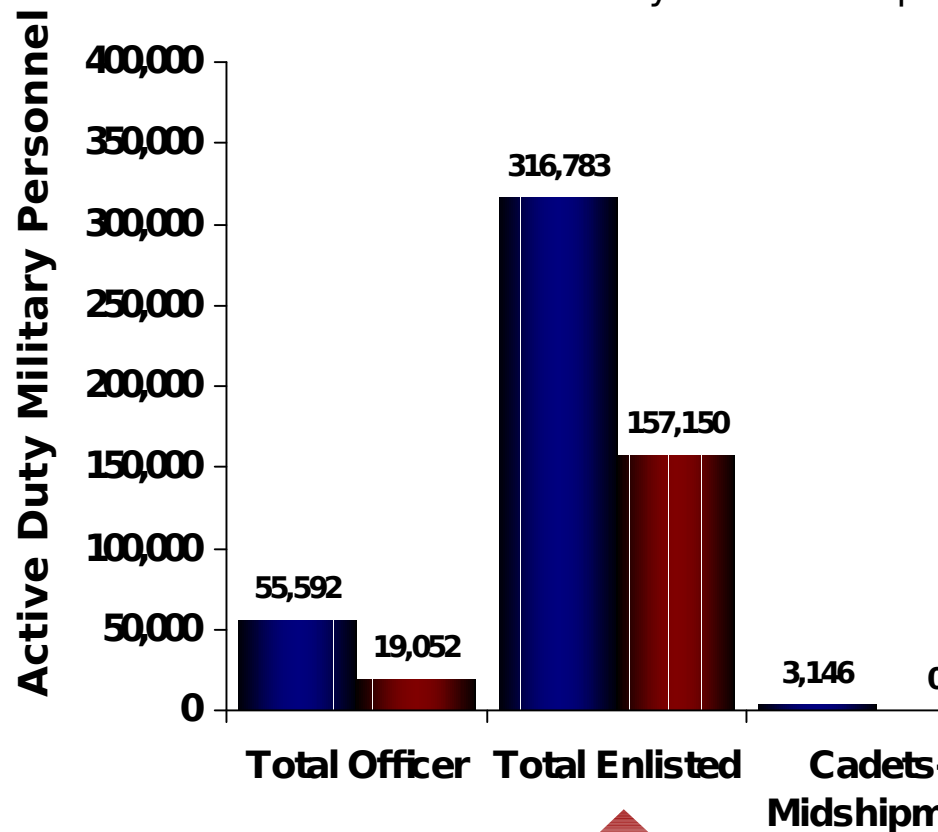
- **1 Navy death every 80 hours**
- **1 POV death every 124 hours**
- **1 Aviation death every 73 days**
- **1 Active duty military injury every 6 hours**
- **1.8 Military members hospitalized every day**
- **11.33 Civilian man-years lost**
- **1 Aircraft destroyed every 52 days**
- **\$1.21 Million a day in aviation losses**

MARINE CORPS

- **1 Marine death every 88 hours**
- **1 POV death every 191 hours**
- **1 Aviation death every 26 days**
- **1 Active duty military injury every 25 hours**
- **1.9 Military members hospitalized every day**
- **2.53 Civilian man-years lost**
- **1 Aircraft destroyed every 23 days**
- **\$1.74 Million a day in aviation losses**



USN/USMC Active Duty Personnel



Age Group	USN	USMC
18-21	17.66 %	38.7 %
22-27	34.20 %	34.5 %
28-35	25.03 %	16.5 %
36-45	19.94 %	8.9 %
46-55	3.17 %	1.1 %

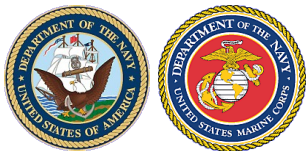
Manpower and Reserve Affairs, 24 September 2004
SPAWARITC (Reports Division), 24 September 2004

Av. Age
28-30

Av. Age
21-23

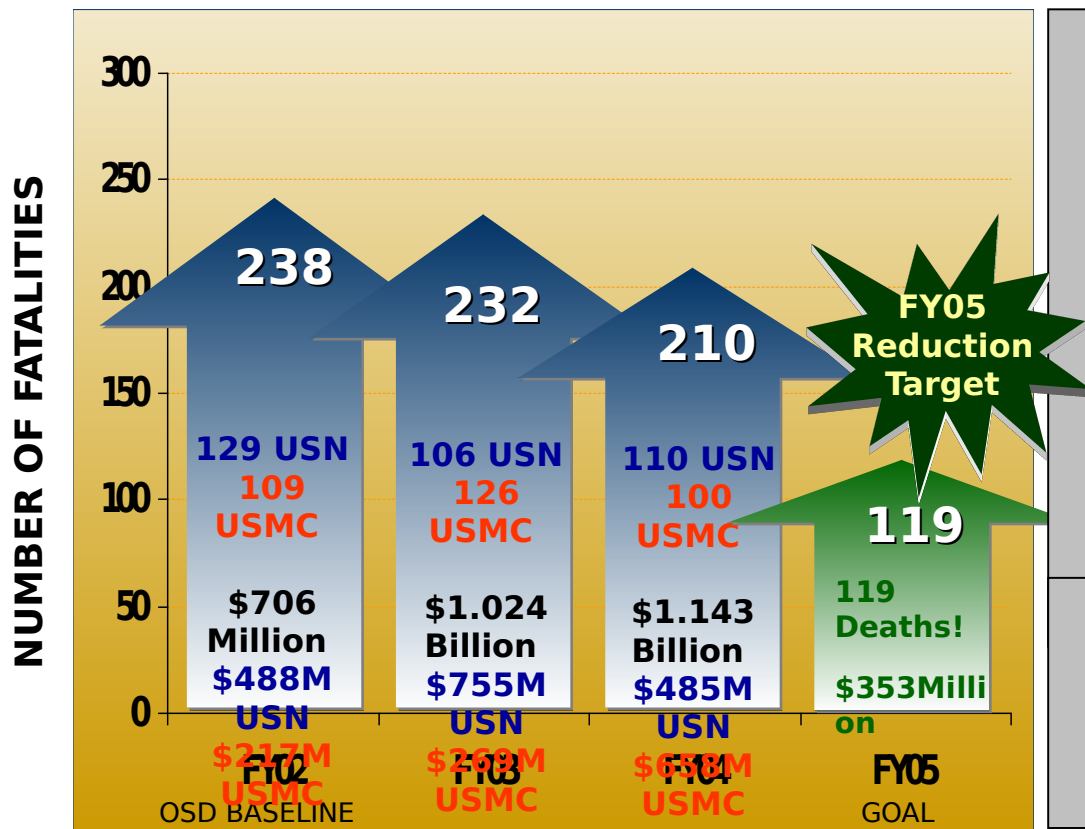
Av. Age
20-22

Directorate for Information Operations and Reports/30 June 2004



Where We Are

USN/USMC FATALITIES & RESOURCES LOST FY02-04



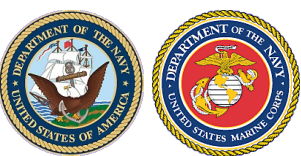
We experienced 210 deaths in FY04

(110 USN & 100 USMC)

Our FY05 50% mishap reduction

Naval Aviation mishap costs have exceeded \$1Billion!

OUR ENDSTATE GOAL IS ZERO!



Status Check (PMV Fatalities)

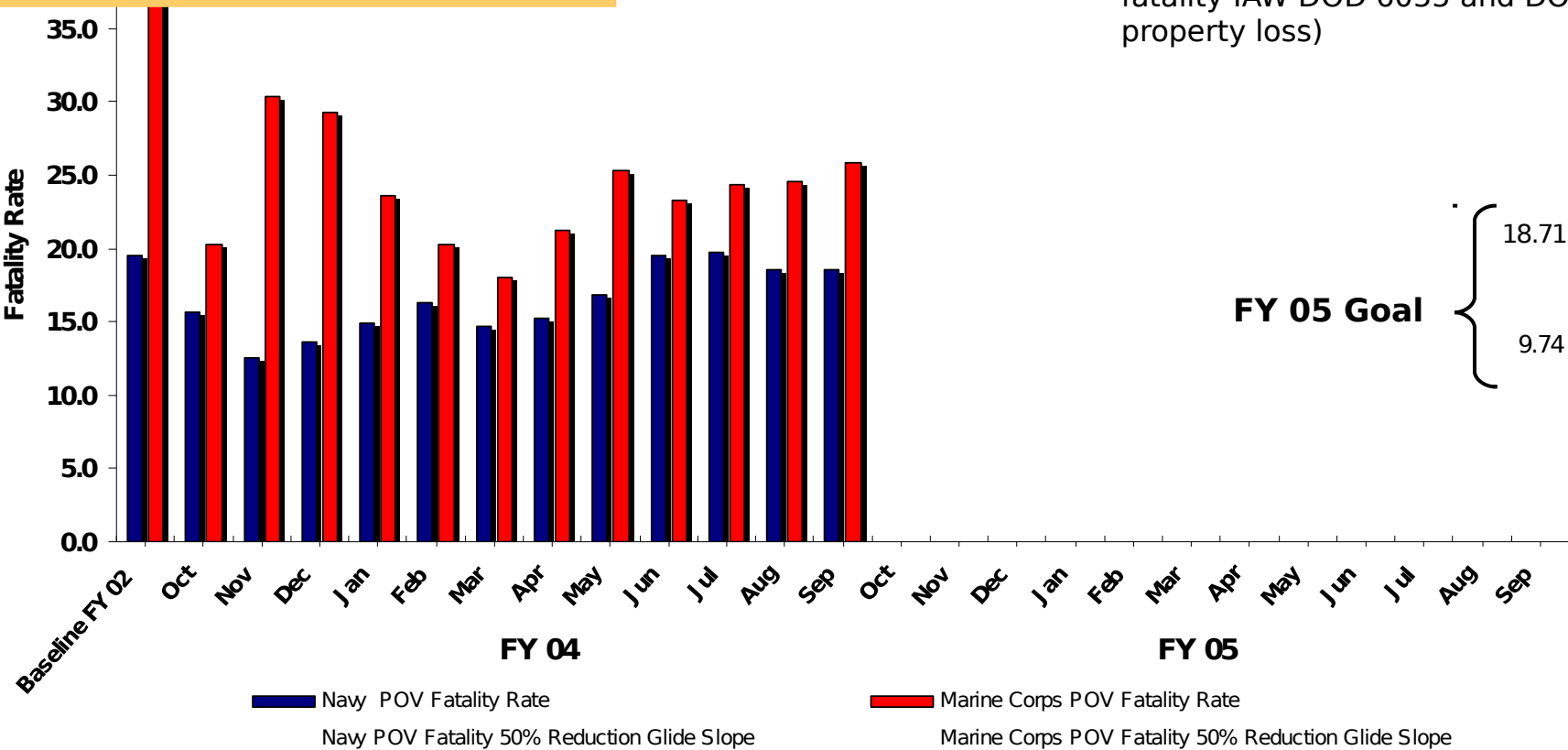
1 year remains...

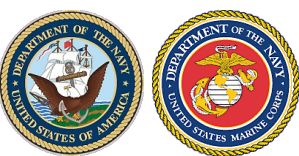
Top Causal Factors

<u>WHEN</u>	<u>WHY</u>
Nighttime Driving	No Seat Belt
Use	
Weekends	Excessive
Speed	Alcohol
	Fatigue

USN/USMC FY04 Losses	
USN	USMC
71 Fatalities	46 Fatalities
\$12.9 Million	\$11.6 Million

(\$\$\$ totals represent cost of all reported mishaps and includes cost of fatality IAW DOD 6055 and DOD property loss)





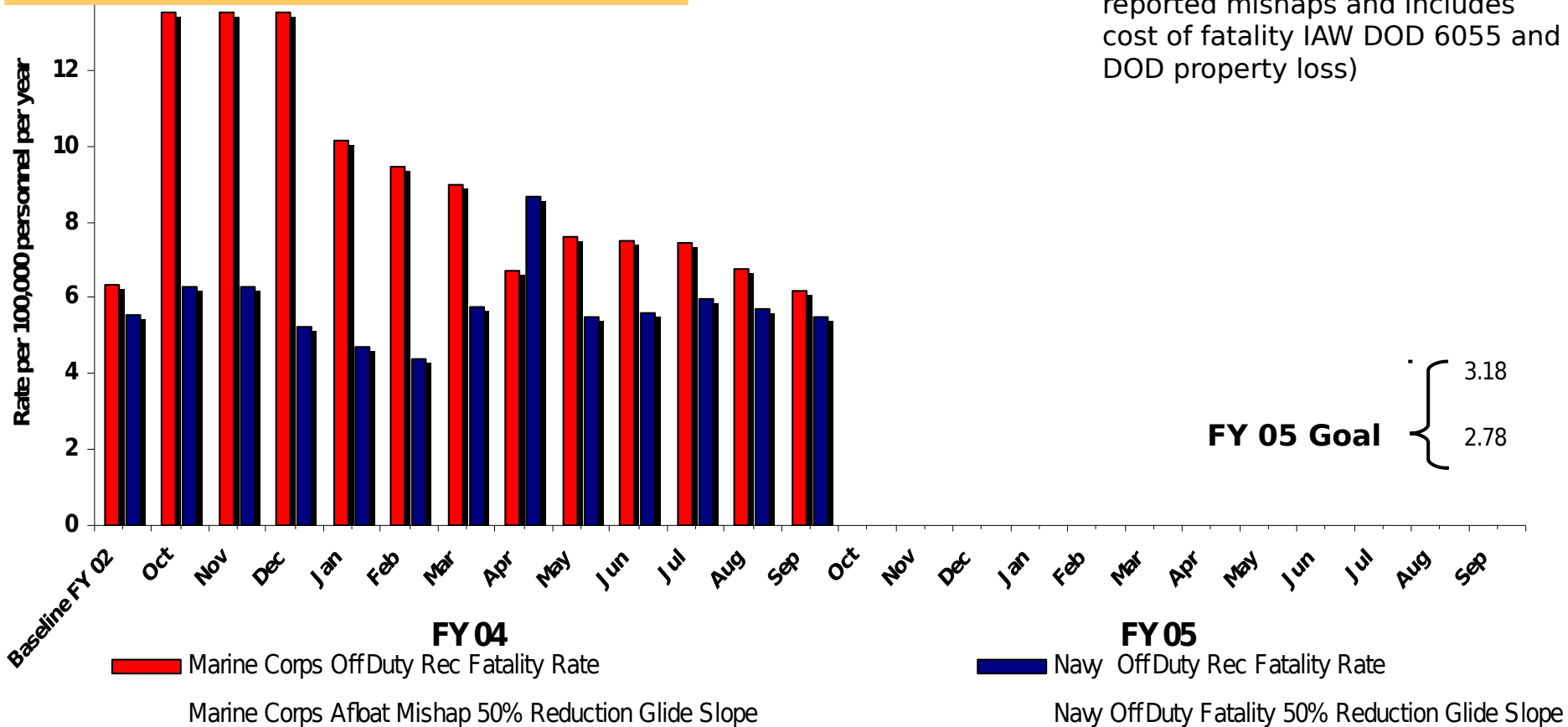
Status Check (Recreation/Off-Duty Fatalities)

Leading Causes of Deaths & Injuries
1 year remains...

- Drowning
- Falls
- Outdoor Recreation
- Team and Outdoor Sports
- Water Sports (jet skis, motorboat)

USN/USMC FY04 Losses	
USN	USMC
21 Fatalities	11 Fatalities
\$6.1 Million	\$2.9 Million

(\$\$\$ totals represent cost of all reported mishaps and includes cost of fatality IAW DOD 6055 and DOD property loss)

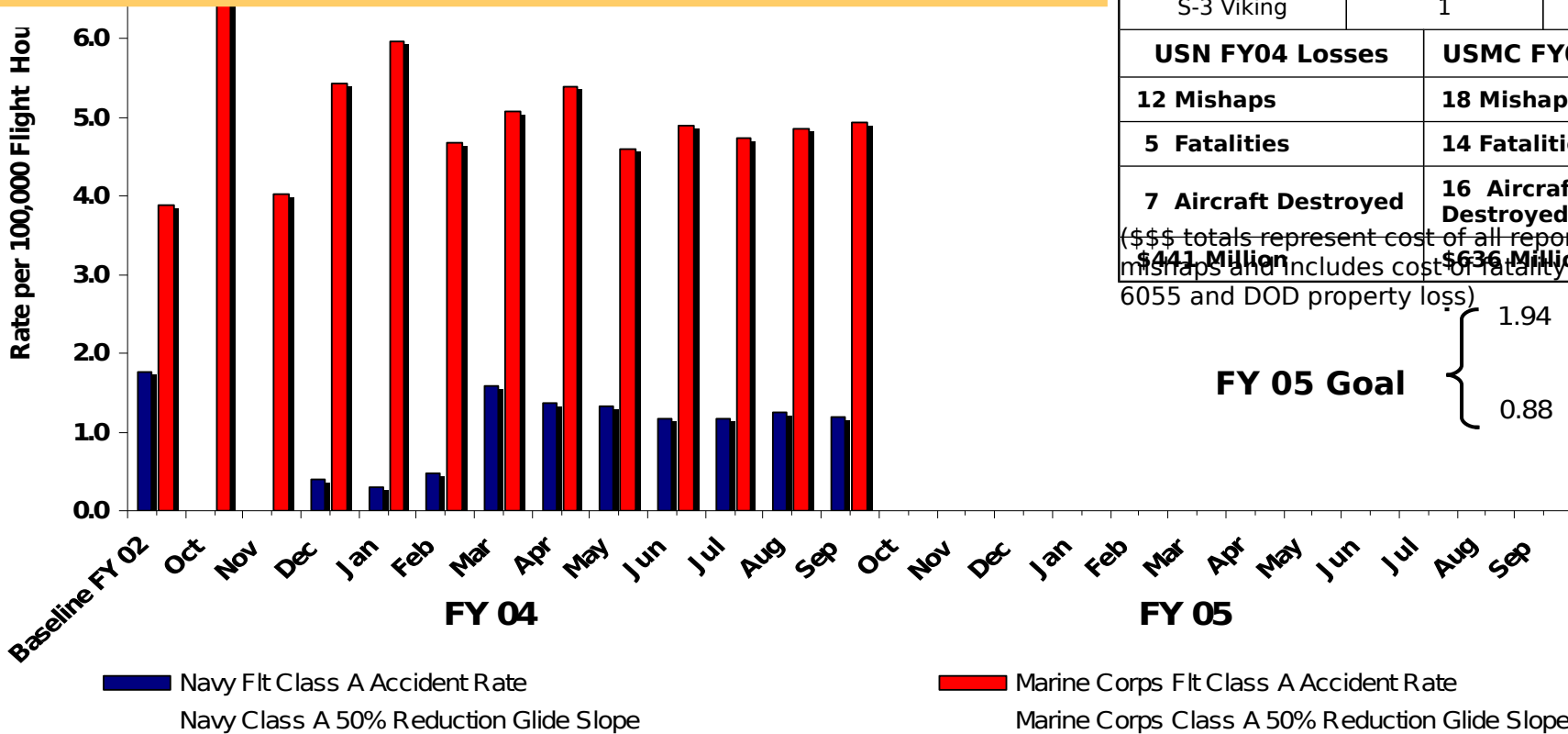




Status Check (Class-A Flt)

Leading Causal Factors

- **Human Error (89%)**
 - Aircrew (breakdown in Crew Resource Management, poor decision making, failure to properly perform emergency procedures)
 - Supervisory (failure to provide adequate guidance and training)
- **Material/Systems Malfunction (11%)**
 - Material/component catastrophic failure (no human error involved)



Mishaps	USN	USMC
F/A -18 Hornet	7	7
AH-1W Cobra	0	3
T-45 Goshawk	2	0
AV-8B Harrier	0	2
UH-1 Huey	0	2
CH-53D/E	0	2
CH-46 Sea Knight	0	1
F-14 Tomcat	1	0
SH-60 Seahawk	1	0
UC-35	0	1
S-3 Viking	1	0
USN FY04 Losses		USMC FY04 Losses
12 Mishaps		18 Mishaps
5 Fatalities		14 Fatalities
7 Aircraft Destroyed		16 Aircraft Destroyed
(\$441 Million)		(\$636 Million)

(\$\$\$ totals represent cost of all reported mishaps and includes cost of fatality IAW DOD 6055 and DOD property loss)



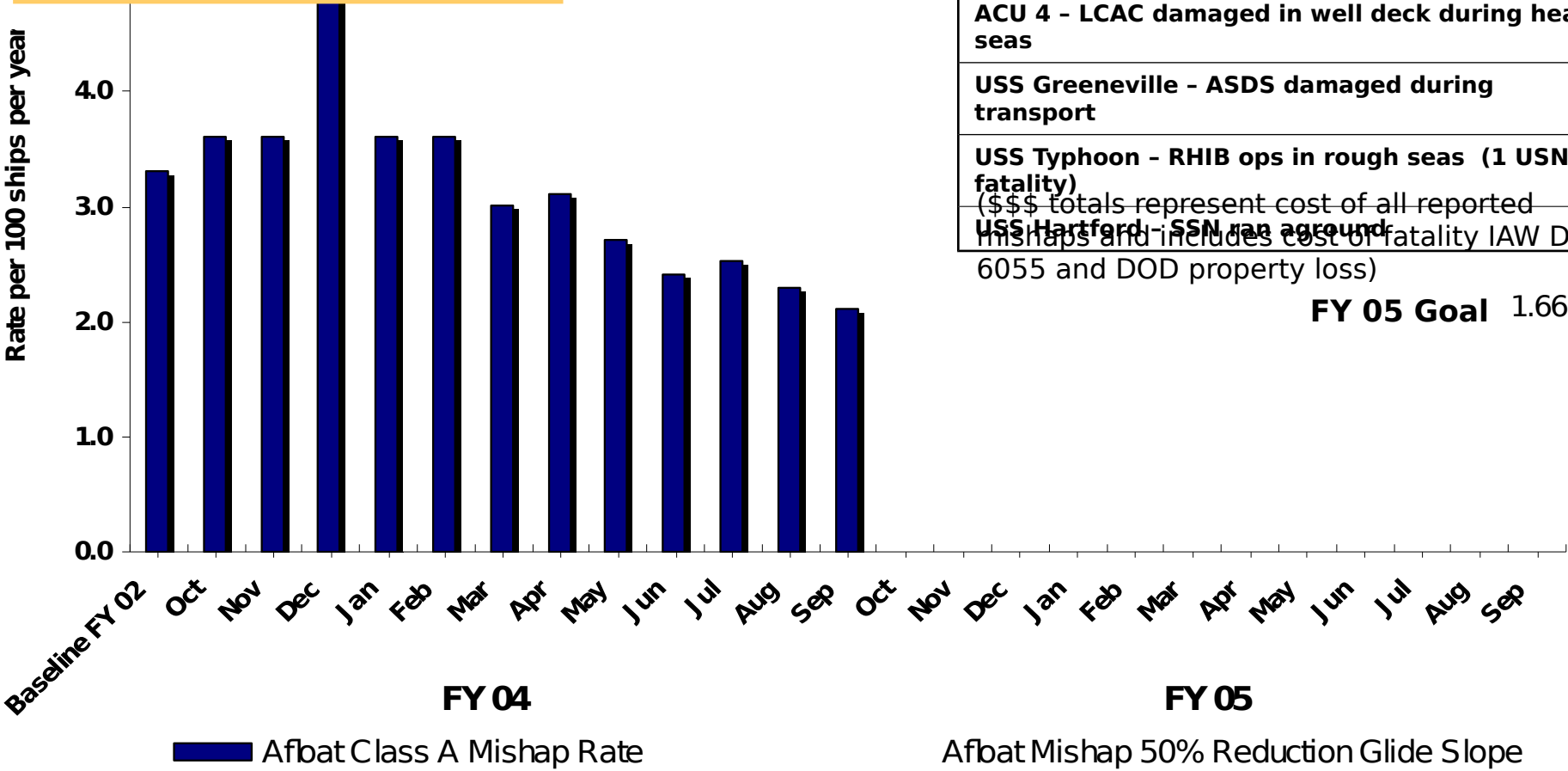
Status Check (Afloat Class-A Mishaps)

1 year remains...

Top 5 Causal Factors

- Inadequate Supervision
- PMS not accomplished
- Poor Crew Resource Management
- Lack of Situational Awareness
- Complacency

USN FY04 Losses	
7 Mishaps	\$20.86 Million
USS John F Kennedy - collision with Dhow	
USS John F Kennedy - H2S leak (1 USN fatality)	
ACU 5 - M1A1 tank slid off LCAC (1 USMC fatality)	
ACU 4 - LCAC damaged in well deck during heavy seas	
USS Greeneville - ASDS damaged during transport	
USS Typhoon - RHIB ops in rough seas (1 USN fatality)	
USS Hartford - SSN ran aground	
(\$\$\$ totals represent cost of all reported mishaps and includes cost of fatality IAW DOD 6055 and DOD property loss)	





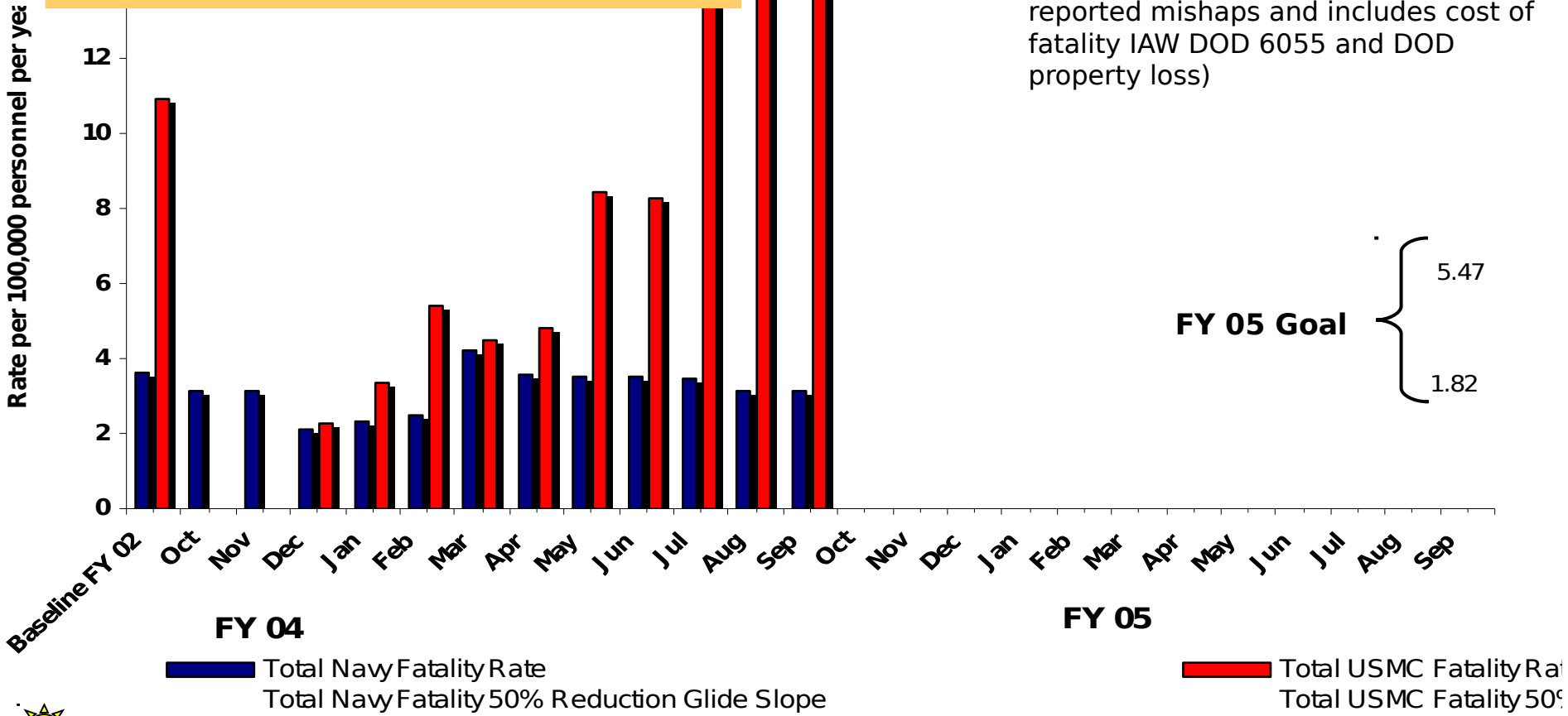
Status Check (Operational Shore/Ground Fatalities)

Leading Causes of Deaths
1 year remains...

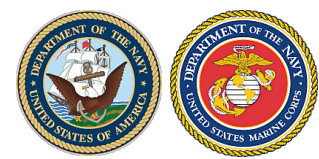
- Tactical Vehicle
- GMV Mishaps
- Industrial Mishaps (electrocutions, burns, falls)
- PRT
- Negligent Weapons Discharge

USN/USMC FY04 Losses	
USN	USMC
11 Fatalities	28 Fatalities
\$1.87 Million	\$1.45 Million

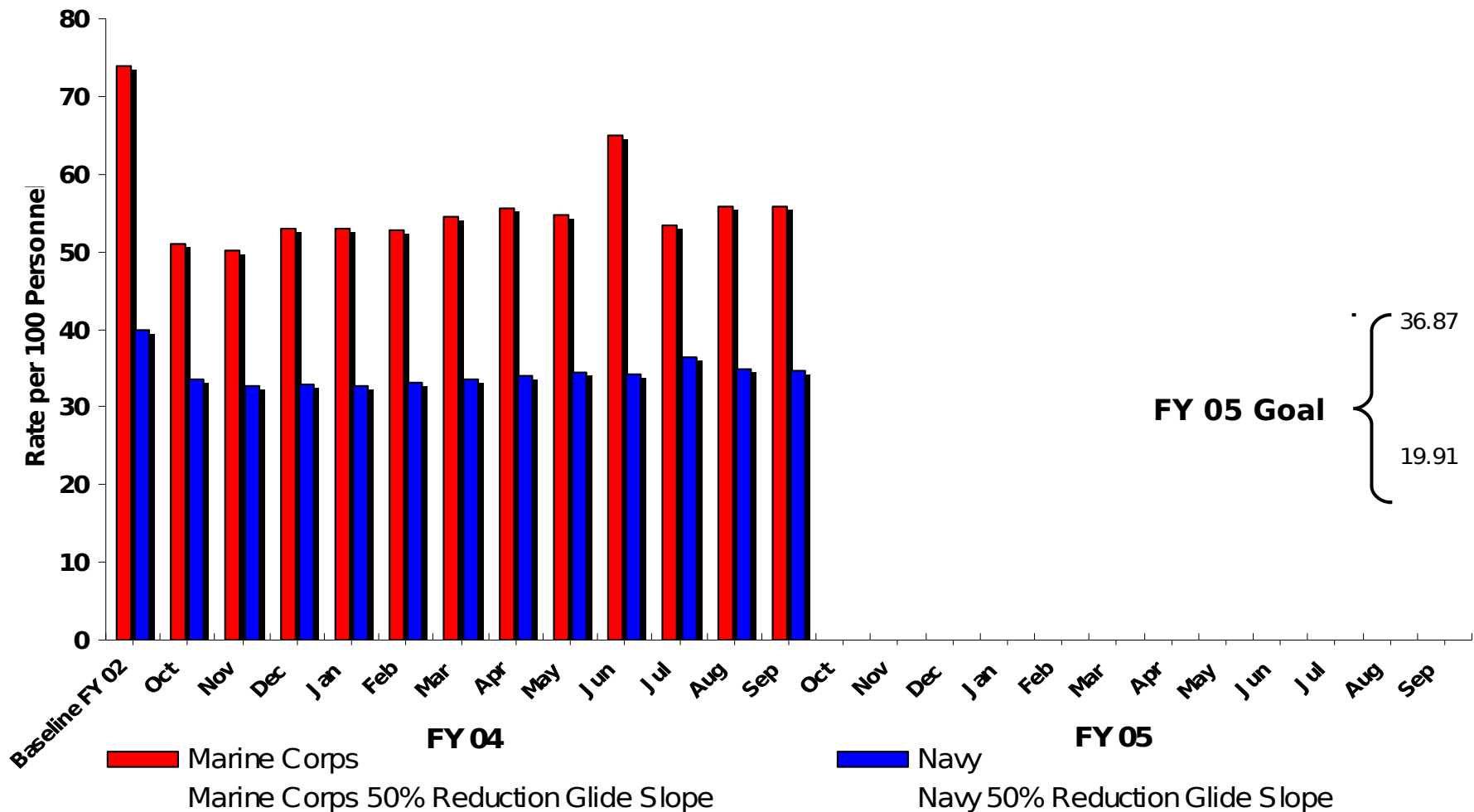
(\$\$\$ totals represent cost of all reported mishaps and includes cost of fatality IAW DOD 6055 and DOD property loss)



Note: Does not include casualties due to enemy action



Status Check (Civilian Lost Day Rates) 1 year remains...





Force Comparison (TYCOMs) - FY02-04

Aviation

(per 100k flight
hrs)

Afloat

(per 100 ships)

Ground/Shore

(per 100k
personnel)

Rec (Off-Duty)

(per 100k
personnel)

Traffic

(per 100k personnel)

USN Class A's/Rate	AIRPAC Class A's/Rate	AIRLANT Class A's/Rate
59 / 1.74	21 / 2.10	24 / 2.80
24 / 2.41	1 / 5.94	2 / 10.41
38 / 3.31	0 / 0	1 / 0.77
62 / 5.39	9 / 6.69	6 / 4.61
212 / 18.44	31 / 23.03	22 / 16.90



Where More Attention Is Needed

The Largest Challenge: Aviation - Traffic Recreation!



FISCAL YEAR	COST		DEATHS								
	OVERALL	AVIATION	OVERALL	PMV			RECREATION				
				Air	Afloat	Shore		Air	Afloat	Shore	
FY99-03	\$ 3.8B	\$ 3.2B	1,045	585	96	128	361	141	31	30	80
FY02	\$683M	\$587M	238	140	30	32	78	32	9	5	18
FY03	\$1.024M	\$956M	232	119	17	31	71	32	9	6	17
FY04	\$1.143B	\$1.077B	210	117	16	20	81	32	4	9	19

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Secretary Rumsfeld's Challenge



THE SECRETARY OF DEFENSE
1000 DEFENSE PENTAGON
WASHINGTON, DC 20301-1000

May 19, 2003

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN OF THE JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE
DIRECTOR, DEFENSE RESEARCH AND ENGINEERING
ASSISTANT SECRETARIES OF DEFENSE
GENERAL COUNSEL OF THE DEPARTMENT OF DEFENSE
INSPECTOR GENERAL OF THE DEPARTMENT OF DEFENSE
DIRECTOR, OPERATIONAL TEST AND EVALUATION
ASSISTANTS TO THE SECRETARY OF DEFENSE
DIRECTOR, ADMINISTRATION AND MANAGEMENT
DIRECTOR, FORCE TRANSFORMATION
DIRECTOR, NET ASSESSMENT
DIRECTOR, PROGRAM ANALYSIS AND EVALUATION
DIRECTORS OF THE DEFENSE AGENCIES
DIRECTORS OF THE DOD FIELD ACTIVITIES

SUBJECT: Reducing Preventable Accidents

World-class organizations do not tolerate preventable accidents. Our accident rates have increased recently, and we need to turn this situation around. I challenge all of you to reduce the number of mishaps and accident rates by at least 50% in the next two years. ~~These goals are achievable, and will directly increase our operational readiness. We owe no less to the men and women who defend our Nation.~~

I have asked the Under Secretary of Defense for Personnel and Readiness to lead a department-wide effort to focus our accident reduction effort. I intend to be updated on our progress routinely. The USD(P&R) will provide detailed instructions in separate correspondence.



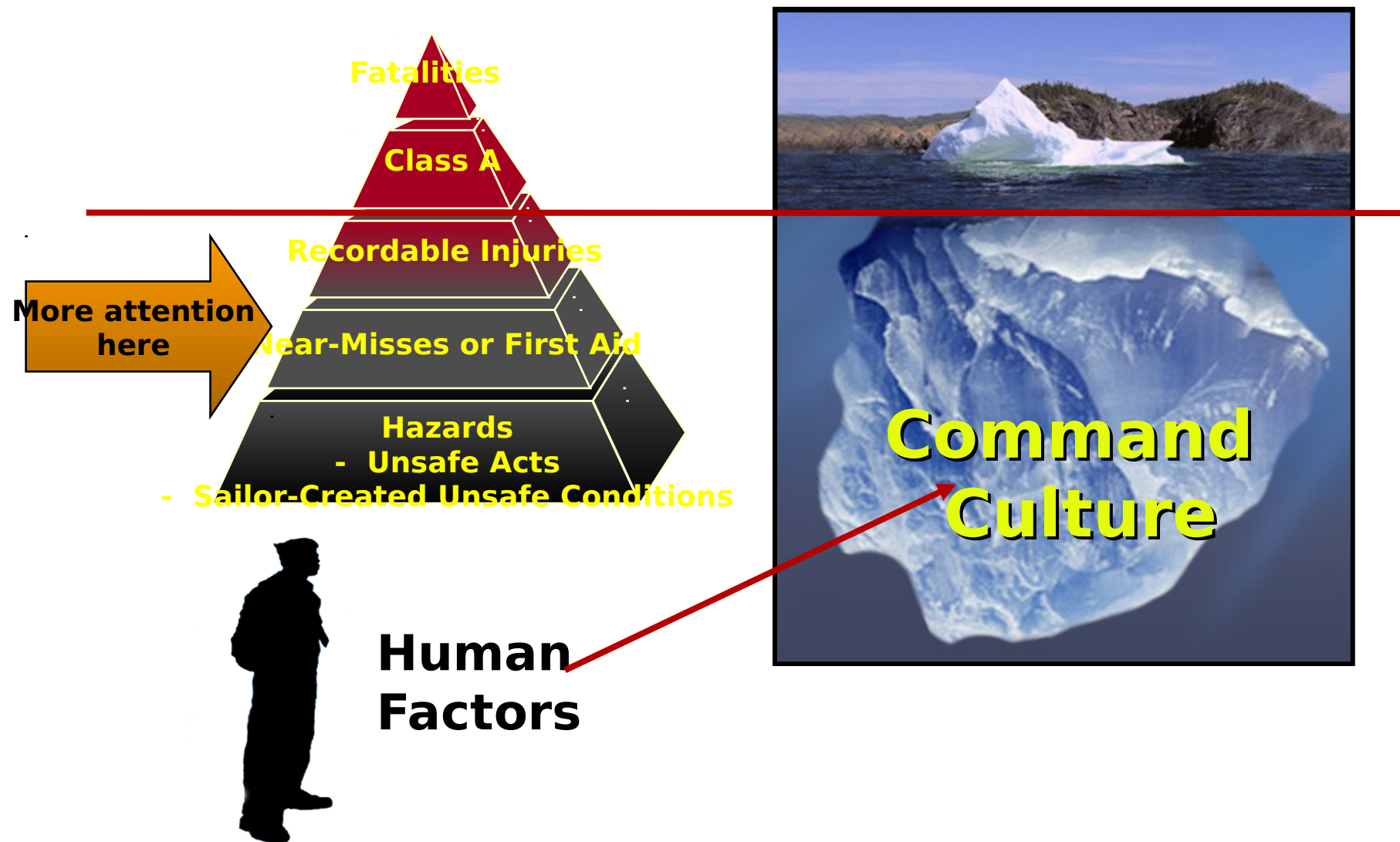
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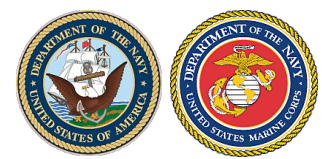
“World-class organizations do not tolerate preventable accidents. Our accident rates have increased recently, and we need to turn this situation around. I challenge all of you to reduce the number of mishaps and accident rates by at least 50% in the next two years.”

Memorandum from Secretary of Defense
19 May 2003



A Safety Culture





How To Get There – What is

LEADERSHIP **“Actionable”** → sets the climate

1. Ensure you have a consistent “Safety Structure”
2. Mentor – On and Off duty
 - 2nd MAW Mentoring Program / Revise leave chits to a “contract”
 - What are your Sailors/Marines doing after hours?
 - The “leadership hungry” PO3
 - Look for the signs “Below the Waterline!”
3. ORM RM
 - Take it off **→** duty
4. Awareness – Can we improve if Sailors don’t know about Mishap Reduction Campaign???
5. Accountability – A Command with no PMV program?
6. Reporting – Hazreps? Class B, C,

A Class “A” is a Class “A” is a Class “A”

- Does a Parent “care” how their Son or Daughter died?



Are We Serious About Safety?

THE BUILDING BLOCKS OF SAFETY



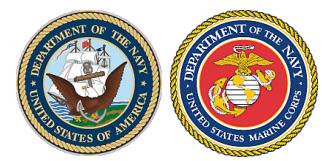
DESIRED END STATE

Every Sailor possesses an ever-present and intuitive safety awareness that he or she carries at all times - at sea, on deployment, at work, at home, on liberty, and leave.



Is It Possible?

- **“Platform” Type Mishaps - YES!**
- **“Off-Duty” Mishaps - HARD.**
 - ***Can be done - but CHANGE a MUST!***
- ***Human Error - The “KEYS” of the realm***



QUESTIONS

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